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METHODS FOR IMPROVING ETCH UNIFORMITY

APPARATUS FOR IMPROVING ETCH UNIFORMITY AND
METHODS THEREFOR

Abstract of the Disclosure

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A method in a plasma processing chamber for improving etch uniformity while etching a semiconductor substrate. The method includes placing the semiconductor substrate into a sacrificial substrate holder. The sacrificial substrate holder is configured to present a sacrificial etch portion surrounding the semiconductor substrate to a plasma within the plasma processing chamber to permit the plasma to etch a first surface of the semiconductor substrate and a first surface of the sacrificial etch portion simultaneously. The first surface of the sacrificial etch portion is formed of a material capable of being etched by the plasma. The method further includes positioning the semiconductor substrate and the sacrificial substrate holder into the plasma processing chamber. There is also included striking the plasma from an etchant source gas released into the plasma processing chamber. Additionally, there is included simultaneously etching the first surface of the semiconductor substrate and the first surface of the sacrificial etch portion using the plasma.

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